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ABSTRACT

This competency-based module uses the Ocean County (New Jersey) Vocational-Technical Schools curriculum-infused model for infusing basic skills instruction into vocational education. The model demonstrates the relationship of vocational skills to communication, mathematics, and science. The document begins with a philosophy statement; preface; a table that explains the number of hours required for academic credit in various programs and the number of those hours that are devoted to basic skills and vocational activities; matrices that show in which courses specific basic skills are taught; a list of objectives; and an explanation of student activities. Most pages in the document are tables that describe the relationship of vocational skills to basic skills within the cabinetmaking program. These pages are organized by instructional unit and the topics within them. For each topic and associated task(s) are listed the theory and basic skills covered. Also listed are the expected student outcomes. The 16 instructional units included are: orientation; careers in custom cabinetmaking; safety; blueprint reading; plans, specifications, and codes; hand tools; power tools; power machinery; materials; cabinet joint construction; the steel square; stair construction; windows and doors; assembly; finishing; and cabinet hardware. (CML)

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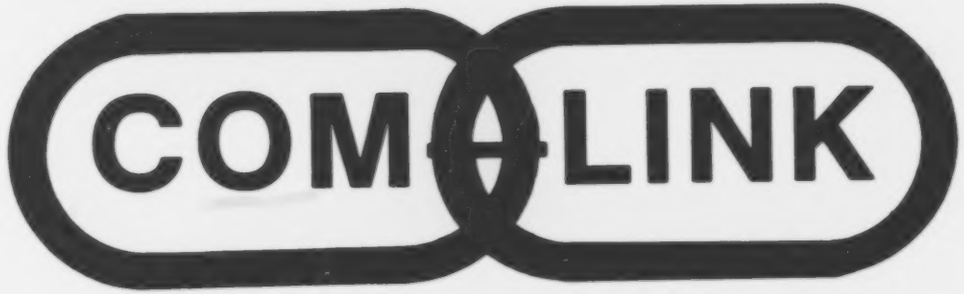
Competency Based Vocational Curricula



With Basic Skills And Academic Linkages

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In Cooperation With The

New Jersey State Department of Education

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And

Ocean County Vocational-Technical School

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Ocean County Vocational-Technical School

Custom Cabinetmaking

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PHILOSOPHY OF EDUCATION

The Ocean County Vocational-Technical Education Program should consist of those courses, activities and experiences which are designed to prepare students for a successful entrance in a given field of work. The program should be based upon an analysis of the worker needs of the field of work, the opportunities and requirements for entrance, and the particular characteristics and needs of the students.

We believe that:

The school should educate and train the students to live effectively in our ever-changing world.

The school should provide, for each student, intensive training toward general and specific job objectives, and setting standards of performance in keeping with the requirements of that particular field of work.

All students should evidence the interest, aptitude, and ability to profit from the specialized instruction, and this should be a condition of entrance into or continuance in a given field of work.

Equal attention should be given in the school program to develop sound character, good citizenship, ability to think critically, and maintain good mental and physical health.

The school must be constantly striving to fulfill its ultimate purpose; that of serving the students and the community. The school should give careful consideration to the needs, interests, and capacities of the students and the educational and technical background, experience, training, and professional interest of the professional staff as they develop a working philosophy of education.

PREFACE

The curriculum format employed by this project is competency based and utilizes the Ocean County Vocational-Technical Schools' curriculum infused model for the teaching of basic skills as part of vocational education. The design demonstrates the relationship of vocationally related skills to communication, mathematics and science knowledge. Proficiences with regard to student outcomes cannot be achieved without mastery in related academic areas. All student outcome objectives are predicated upon entry level skills which reflect the dictates of the job marketplace and industry. In addition, basic skills matrices developed by the district are included. The totality of this package is designed to facilitate the vocational teaching process and to enchance the learning experiences of our students.

POTENTIAL OPPORTUNITY FOR AWARDING ACADEMIC CREDITS FOR STUDENTS AT OCEAN COUNTY VOCATIONAL-TECHNICAL SCHOOL

450 hours - 1 year course at O.C.V.T.S.
900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

120 hours per year needed for 5 credits
60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
AIR CONDITIONING, REFRIGERATION AND HEATING	900	140	120	120	520
AUTO BODY REPAIR	900	130	120	125	525
AUTOMOTIVE MECHANICS	900	150	120	120	510
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	900	216	126	125	433
BEAUTY CULTURE I AND II	1000	240	120	130	515
BUILDING TRADES	900	135	120	130	515
BUSINESS RELATIONS - MEDIA/MODELING	450	200	60	40	150
CHILD CARE AIDE	900	240	120	122	418
COMMERCIAL ART AND PRINTING	900	120	215	75	580
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	900	130	125	130	515

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COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
COMMERCIAL PHOTOGRAPHY & TELEVISION PRODUCTION	900	150	125	80	545
CUSTOM CABINETMAKING	900	130	120	60	590
DENTAL ASSISTING	450	168	65	77	140
DESIGN DRAFTING	900	135	150	165	450
ELECTRICAL TRADES	900	106	120	124	550
FASHION MERCHANDISING	450	200	60	40	150
FOOD SERVICES	900	206	132	125	437
INDUSTRIAL AUTOMATION AND ELECTRONICS	900	129	140	132	499
INTERIOR DESIGN	900	210	130	120	440
LANDSCAPING AND GREENHOUSE TECHNOLOGY	900	125	125	175	475

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900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

120 hours per year needed for 5 credits
60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
MARINE ENGINE AND BOAT SERVICES	900	164	120	125	491
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	450	173	60	77	140
MEDICAL SKILLS AND RELATED HEALTH CAREERS	450	135	65	125	125
MEDICAL SKILLS (ADVANCED)	450	125	60	125	140
PLUMBING AND HEATING	900	140	120	120	520
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	900	125	130	60	585
T.V. AND COMPUTER REPAIR	900	125	150	175	450
WELDING	900	135	120	100	545

COMMUNICATION SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School.
The asterisk indicates that the topic is studied in that curriculum.

COURSE	Functional Reading Skills	Vocabulary	Identifying Main Ideas	Meanings in Context	Inferences	Fact/Opinion Distinction	Signal Words	Parts of Text-book/Manual	Following Directions	Outlining and Note Taking	Interpretation of Maps and Charts	Interpretation of Diagrams	Test Taking Skills	Expository Writing Skills	Problem Solving	Spelling	Oral Communications	Study Skills	Resume Writing	Job Application Skills
AIR CONDITIONING, REFRIGERATION AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AUTO BODY REPAIR	*	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
AUTOMOTIVE MECHANICS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BEAUTY CULTURE I AND II	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BUILDING TRADES	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*
CHILD CARE AIDE	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL ART AND PRINTING CAREERS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CUSTOM CABINETMAKING	*	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
DENTAL ASSISTING	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*

COMMUNICATION SKILLS - CONTINUED

COURSE	Functional Reading Skills	Vocabulary	Identifying Main Ideas	Meanings in Context	Inferences	Fact/Opinion Distinction	Signal Words	Parts of Text-book/Manual	Following Directions	Outlining and Note Taking	Interpretation of Maps, Graphs and Charts	Interpretation of Diagrams	Test Taking Skills	Expository Writing Skills	Problem Solving	Spelling	Oral Communications	Study Skills	Resume Writing	Job Application Skills
DESIGN DRAFTING	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ELECTRICAL TRADES	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FASHION MERCHANDISING	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
FOOD SERVICES	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
INDUSTRIAL AUTOMATION AND ELECTRONICS	*	*	*		*	*			*	*	*	*	*	*	*	*	*	*	*	*
INTERIOR DESIGN	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LANDSCAPING AND GREENHOUSE TECHNOLOGY	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*
PLUMBING AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
T.V. AND COMPUTER REPAIR	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WELDING	*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

MATHEMATICS SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School. The asterisk indicates that the topic is studied in that curriculum.

COURSE	Whole Numbers	Common Fractions	Decimals	Percentages	Weights and Measurements	Ratio and Proportion	Powers and Roots	Formulas	Estimating	Geometry	Basic Trigonometric Functions	Graphs
AIR CONDITIONING, REFRIGERATION AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*
AUTO BODY REPAIR	*	*	*	*	*	*	*	*	*	*		*
AUTOMOTIVE MECHANICS	*	*	*	*	*	*	*	*	*			*
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	*	*	*	*	*	*	*	*	*	*		*
BEAUTY CULTURE I AND II	*	*	*	*	*	*	*	*	*	*	*	*
BUILDING TRADES	*	*	*	*	*	*	*	*	*	*	*	*
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	*		*	*		*			*			*
CHILD CARE AIDE	*	*	*	*	*	*		*	*	*	*	*
COMMERCIAL ART AND PRINTING CAREERS	*	*	*	*	*	*		*	*	*		*
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	*	*	*	*	*	*	*	*	*	*	*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	*	*	*	*	*	*	*	*	*	*	*	*
CUSTOM CABINETMAKING	*	*	*	*	*	*	*	*	*	*	*	*
DENTAL ASSISTING	*	*	*	*	*	*		*	*			*

MATHEMATICS SKILLS - CONTINUED

COURSE	Whole Numbers	Common Fractions	Decimals	Percentages	Weights and Measurements	Ratio and Proportion	Powers and Roots	Formulas	Estimating	Geometry	Basic Trigonometric Functions	Graphs
DESIGN DRAFTING	*	*	*	*	*	*		*	*	*	*	*
ELECTRICAL TRADES	*	*	*	*	*	*	*	*	*	*	*	*
FASHION MERCHANDISING	*	*	*	*	*	*		*	*	*		*
FOOD SERVICES	*	*	*	*	*	*		*	*	*		*
INDUSTRIAL AUTOMATION AND ELECTRONICS	*	*	*	*	*	*		*	*	*	*	*
INTERIOR DESIGN	*	*	*	*	*	*		*	*	*		*
LANDSCAPING AND GREENHOUSE TECHNOLOGY	*	*	*	*	*	*		*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE	*	*	*	*	*	*		*			*	*
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	*	*	*	*	*	*	*	*	*	*		*
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*		*	*	*	*	*
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*		*	*	*	*	*
PLUMBING AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	*	*	*	*	*	*	*	*			*	*
T.V. AND COMPUTER REPAIR	*	*	*	*	*	*	*	*		*	*	*
WELDING	*	*	*	*	*	*		*	*	*	*	*

SCIENCE SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School. Those listed as "Not Available" do not offer enough hours to qualify for credits in your high school. However, we have noted the skills covered. Those listed with an asterisk after the title are eligible. The asterisk indicates that the topic is studied in that curriculum.

	HUMAN ANATOMY						ASTRONOMY			CHEMISTRY			PHYSICS					ECOLOGY				
COURSE	Cellular Theory	Skeletal System	Muscles	System of Body	Diseases	Psychology	Solar System	Gravity	Weather	Matter	Chemical Reactions	Applied Chemistry	Light	Magnetism	Heat	Magnetism and Electricity	Nuclear Energy	Botany	Food Production	Fuels	Nutrition	Waste Disposal
AIR CONDITIONING, REFRIGERATION AND HEATING							*	*	*	*	*	*		*	*	*				*	*	
AUTO BODY REPAIR								*	*	*	*	*	*	*	*					*		*
AUTOMOTIVE MECHANICS								*		*	*	*	*	*	*	*				*		
AUTOMOTIVE DIESEL AND ENGINE REBUILDING								*		*	*	*		*	*	*	*			*		*
BEAUTY CULTURE I AND II	*	*	*	*	*	*				*	*	*	*		*	*					*	
BUILDING TRADES							*	*	*	*	*	*	*		*	*		*		*		
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	N	*O	*T	*A	V	*A	I	L	A	B	L	E										
CHILD CARE AIDE	*	*	*	*	*	*			*		*	*		*	*			*	*		*	*
COMMERCIAL ART AND PRINTING CAREERS	N	O	T	A	V	A	I	*L	A	*B	*L	*E	*		*	*						*
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*		*		*	*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	N	O	T	A	V	*A	I	*L	A	*B	*L	*E	*		*	*						*
CUSTOM CABINETMAKING	*N	O	T	A	V	A	I	*L	A	*B	*L	*E			*			*				
DENTAL ASSISTING	*	*	*	*	*	*				*	*	*	*								*	*

SCIENCE SKILLS - CONTINUED

COURSE	HUMAN ANATOMY						ASTRONOMY			CHEMISTRY			PHYSICS					ECOLOGY				
	Cellular Theory	Skeletal System	Muscles	System of Body	Diseases	Psychology	Solar System	Gravity	Weather	Matter	Chemical Reactions	Applied Chemistry	Light	Magnetism	Heat	Magnetism and Electricity	Nuclear Energy	Botany	Food Production	Fuels	Nutrition	Waste Disposal
DESIGN DRAFTING							*	*	*	*		*	*		*	*	*			*		*
ELECTRICAL TRADES							*	*	*	*	*		*	*	*	*	*		*			
FASHION MERCHANDISING	*	*	*	*		*		*		*	*	*	*								*	
FOOD SERVICES					*	*		*	*		*	*	*		*				*		*	*
INDUSTRIAL AUTOMATION AND ELECTRONICS								*		*			*	*	*	*	*			*		
INTERIOR DESIGN		*	*			*	*	*	*	*	*	*	*		*	*						
LANDSCAPING AND GREENHOUSE TECHNOLOGY							*	*	*		*	*	*		*	*		*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE								*	*	*	*	*	*	*	*	*		*		*		
MEDICAL OFFICE RECEPTIONIST/ASSISTANT	N	* O	* T	* A	* V	* A	I	L	A	B	* L	E										*
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*		*		*	*					*			*		*	*
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*		*		*	*					*			*		*	*
PLUMBING AND HEATING					*		*	*	*	*	*	*			*	*		*		*		*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	N	O	T	A	V	A	I	* L	A	* B	* L	* E	*	*	*	*				*		*
T.V. AND COMPUTER REPAIR										*	*	*	*	*	*	*				*		
WELDING								*		*	*	*	*	*	*	*				*		

COURSE OBJECTIVES

1. To prepare students with entry level skills, abilities and knowledge for employment in custom cabinetmaking.

2. To present 900 hours of instruction and practice in custom cabinetmaking in accordance with the course curriculum and skill profile outline.

3. To provide a detailed summary evaluation of the proficiency achieved by each student representing the most important content areas presented in the custom cabinetmaking skill profile.

4. To help each student develop positive attitudes and ideals related to their occupation in custom cabinetmaking and understand their own capabilities and potential.

5. To instill in each student the need to plan for their professional growth through continuous learning in their chosen occupation.

STUDENT ACTIVITIES

All students enrolled in the Ocean County Vocational-Technical School are encouraged to join Vocational Industrial Clubs of America (VICA). Student activities are infused into each program. Each building has a student government and a student activities program separate from VICA. Additionally, students from each center and every class are encouraged to participate in the VICA Leadership and Job Demonstration Contests which begin in the centers and radiate throughout the district as Ocean County Vocational-Technical School inter school winners are chosen.

Student activities emphasize the basic precepts of VICA, as well as the basic tenets of democracy. Within the context, each of our programs teaches the dignity of work, high standards in trade ethics and safety, and a belief in the free enterprise economic system.

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UNIT: ORIENTATION

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. School rules and regulations (Student Handbook)	A. Student rights and responsibilities B. Student grievance procedures C. Student expectations D. School code of discipline E. Attendance and graduation policy F. Student transfers G. Grading system H. Accidents I. Bedside instruction J. Cooperative Industrial Education (C.I.E.) K. Driving policy L. Drug and alcohol policy M. Early dismissal procedures N. Lockers O. Driver permits P. School closing procedures Q. Smoking R. Student progress reports S. Telephones T. Theft U. Tools and equipment V. Vocational Industrial Clubs of America (VICA)	A. Functional reading skills B. Following directions C. Outlining and note taking D. Oral communications			A. The student will know what is expected of him/her for the school year in order to promote effective learning conditions Written test B. The student will know the standards to be met within the school and classroom Written test

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
II. Student contract	A. Attendance B. Request for make-up work C. Extra help with assignments or lessons D. Homework assignments E. Notebooks F. Passing test grade G. Daily grading system H. Lockers I. Dress Code J. Daily cleaning duties	A. Functional reading skills B. Following directions C. Outlining and note taking D. Oral communications			A. The student will know what is expected of him/her for the school year in order to promote effective learning conditions Written test B. The student will know the standards to be met within the school and classroom Written test

UNIT: CAREERS IN CUSTOM CABINETMAKING

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
1. Understanding career opportunities in cabinetmaking	A. Millworker B. Designer C. Estimator D. Fixture maker (store, office, etc.) E. Specialty plants F. Finish carpenter	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Interpretation of diagrams H. Resume writing I. Job application	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Ratio and proportion G. Formulas H. Estimating I. Geometry	A. Cellular theory B. Gravity C. Matter D. Chemical reactions E. Applied chemistry	A. The student will be able to demonstrate a knowledge of working with wood B. The student will be able to sketch working or shop drawings C. The student will be able to calculate materials D. The student will be able to demonstrate safe working habits E. The student will be able to identify and select materials F. The student will be able to set up and operate machinery G. The student will be able to construct components into finished unit H. The student will be able to apply finishes

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understanding training of custom cabinetmaking	A. Education B. Applications C. Cooperative Industrial Education (C.I.E.) D. Vocational Industrial Clubs of America (VICA) E. Safety rules and regulations	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Problem solving G. Interpretation of diagrams H. Resume writing I. Job application	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Geometry		A. The student will be able to select proper courses B. The student will be able to complete a job application and a personal resume C. The student will be able to describe the Cooperative Industrial Education (CIE) program D. The student will be able to define Vocational Industrial Clubs of America (VICA) and its purpose E. The student will be able to list all the safety regulations

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understanding the apprenticeship program	A. Commitment B. Age C. Term D. Skills to learn E. Salary F. Qualifications G. Orientation quiz	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Problem solving G. Interpretation of diagrams	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Ratio and proportion F. Estimating		A. The student will be able to define the apprenticeship program B. The student will be able to complete the orientation quiz with 72% accuracy

UNIT: SAFETY

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Understand safety procedures of shop	A. Personal safety (clothing, footwear, glasses, etc.) B. Shop safety C. Tools 1. Hand tools 2. Power tools D. Lifting and carrying E. Fire prevention F. Electrical safety G. Chemical safety	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Interpretation of diagrams F. Test taking skills	A. Whole numbers B. Common fractions C. Decimals D. Geometry	A. Chemical reactions B. Applied chemistry C. Heat	A. The student will be able to demonstrate safe use of hand tools B. The student will be able to demonstrate safe use of power tools C. The student will be able to select the proper tool for the job at hand D. The student will be able to properly lift heavy objects E. The student will be able to state fire hazards, causes and methods of control and prevention F. The student will be able to identify class A, B and C fires G. The student will be able to pass a written test on shop safety

UNIT: BLUEPRINT READING

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Read plans II. Sketching	A. Reading blueprints 1. Sections 2. Details 3. Elevation B. Sketching blueprints 1. Scale rule 2. Lines and dimensions 3. Symbols 4. Schedules	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Interpretation of diagrams H. Interpretation of maps, graphs and charts I. Test taking skills	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Ratio and proportion G. Formulas H. Estimating I. Geometry		A. The student will be able to locate and read sectional views B. The student will be able to read detail views C. The student will be able to identify and read elevated drawings D. The student will be able to interpret window and door schedules E. The student will be able to read a scale rule F. The student will be able to define types of lines and read dimensions G. The student will be able to interpret architecture symbols H. The student will be able to pass a written test with 70% accuracy

UNIT: PLANS SPECIFICATIONS CODES

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Compile a specification list	A. Conditions and information B. Finish carpentry and millwork C. Schedule for room finishers D. Painting and finishing E. Tilework	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Problem solving H. Test taking skills	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Ratio and proportion G. Formulas H. Estimating	A. Applied chemistry B. Heat	A. The student will be able to state the use of specifications B. The student will be able to compose their own specification list pertaining to their chosen trade C. The student will be able to identify and select material required from specifications list D. The student will be able to pass a written test with 70% accuracy

UNIT: HAND TOOLS

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing hand tools	A. Striking tools - hammers B. Measuring tools 1. Folding wood rule 2. Steel tape 3. Combination square 4. Rafter or steel square 5. Dividers C. Saws 1. Cross cut 2. Rip saw 3. Back saw 4. Dovetail saw 5. Coping saw 6. Hack saw D. Edge cutting tools 1. Wood chisels 2. Block plane 3. Robbet plane 4. Jack plane 5. Utility knife 6. Drilling and boring tools 7. Counter sink 8. Push drill 9. Doweling jig E. Fastening tools 1. Screwdrivers 2. Adjustable wrenches 3. Combination wrenches 4. Nail sets 5. Ratchet screwdrivers 6. Pliers 7. Stapler	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Problem solving	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Ratio and proportion	A. Chemical reactions B. Applied chemistry C. Heat	A. The student will be able to identify striking tools B. The student will be able to demonstrate the proper use of the hammer C. The student will be able to identify and demonstrate the proper use of measuring tools D. The student will be able to identify and demonstrate the proper use of hand saws E. The student will be able to identify and demonstrate the proper use of drilling and boring tools F. The student will be able to identify and properly demonstrate the safe use of all types of hand fastening tools

UNIT: POWER TOOLS

TOPIC: PORTABLE POWER TOOLS

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operating power tools safely	A. Saws 1. Circular a. clutch drive b. gear drive 2. Sabre saw 3. Reciprocating saw B. Drills 1. ¼ and 3/8" pistol grip 2. ½" "D" handle 3. Screw gun C. Power plane D. Motorized mitre box E. Routers F. Sanders 1. Vibrator 2. Belt G. Staplers and nailers 1. Air 2. Electric	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Problem solving F. Test taking skills	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Formulas	A. Applied chemistry B. Heat	A. The student will be able to identify and demonstrate safe and proper use of portable power saws B. The student will be able to change saw blades when dull C. The student will be able to identify and demonstrate safe and proper use of portable power drills and screw gun D. The student will be able to identify and demonstrate safe and proper use of power planes, routers and motorized mitre box E. The student will be able to identify and demonstrate safe and proper use of vibrator and belt sander F. The student will be able to select proper grit and change paper on a vibrator sander G. The student will be able to identify and demonstrate safe and proper use of power nailers and staplers H. The student will be able to list safety rules for all portable power tools I. The student will be able to pass a written test on safety of all power tools with 70% accuracy

UNIT: POWER TOOLS - CONTINUED

TOPIC: STATIONARY POWER TOOLS

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operating stationary power tools safely	A. Table saw B. Radial arm saw C. Band saw D. Jointer E. Surface planer F. Drill press G. Mortise machine H. Tennaner I. Lathe J. Disc sander K. Belt sander L. Spindle sander M. Scroll saw N. Shaper O. Auto feed wide belt sander	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Problem solving H. Test taking skills	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Formulas G. Geometry	A. Gravity B. Heat	A. The student will be able to identify all stationary power tools B. The student will be able to identify all major parts of each stationary power tools C. The student will be able to make all necessary normal adjustments required to safely operate all stationary power tools D. The student will be able to list safety rules for all the stationary power tools E. The student will be able to demosntrate the safe use of all stationary power tools F. The student will be able to pass a written test on safety of all power tools with 70% accuracy

UNIT: POWER MACHINERY

TOPIC: USE AND MAINTENANCE

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Operate and maintain stationary machinery	A. Operation 1. Table saw 2. Radial arm saw 3. Jointer 4. Planer (thickness) 5. Band saw 6. Spindle shaper 7. Mortise machine 8. Tennoner 9. Drill press 10. Wood lathe 11. Spindle sander 12. Disc sander 13. Tool grinder 14. Auto feed, wide belt sander B. Maintenance 1. Cleaning 2. Inspection 3. Lubrication 4. Change blades 5. Replace abrasives	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Problem solving F. Spelling G. Oral communications		A. Applied chemistry B. Heat	A. The student will be able to safely operate stationary power machinery B. The student will be able to pass a safety test covering all machinery C. The student will be able to properly clean and inspect for broken or worn parts D. The student will be able to lubricate stationary machinery E. The student will be able to change blades and cutters on machinery F. The student will be able to replace abrasive sleeves, discs, belts, etc. on power machinery

UNIT: MATERIALS

TOPIC: WOOD

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Analysis of wood	A. Lumber 1. Softwood 2. Hardwood 3. Plywood B. Softwood C. Cutting methods D. Moisture content E. Seasoning lumber F. Lumber defects G. Grading H. Plywood	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Problem solving F. Test taking skills	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Formulas G. Estimating H. Ratio and proportion	A. Cellular theory B. Gravity C. Chemical rections D. Applied chemistry	A. The student will be able to identify lumber classifications on a written test B. The student will be able to state methods of milling lumber C. The student will be able to explain moisture content D. The student will be able to state methods of seasoning lumber E. The student will be able to state common defects in lumber F. The student will be able to explain the grading system of lumber G. The student will be able to state grading and specifications used for plywood H. The student will be able to pass a written test with 70% accuracy

UNIT: MATERIALS - CONTINUED

TOPIC: FASTENERS

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing fasterners	A. Nails B. Screws C. Adhesives	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Problem solving	A. Whole numbers B. Common fractions C. Weights and measurements D. Formulas E. Estimating	A. Chemical reactions B. Applied chemistry C. Heat	A. The student will be able to identify the various types of nails and state their uses B. The student will be able to explain the penny weight system of measurement of nails C. The student will be able to explain the measurement system used for selecting the proper screw for the job assignment D. The student will be able to state the common available adhesives used in cabinet work E. The student will be able to state where each type of adhesive is commonly used

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Fitting cabinet joints	A. Butt joints 1. Doweled butt 2. Splined butt B. Miter joint 1. Doweled joint 2. Splined miter C. Spline D. Tongue and groove E. Dowel joint F. Dovetail jiont G. Dado joint H. Dado and robbet	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Problem solving G. Interpretation of diagrams	A. Whole numbers B. Common fractions C. Decimals D. Weights and measurements E. Formulas F. Geometry	A. Gravity B. Chemical reactions C. Applied chemistry D. Heat	A. The student will be able to identify the various types of cabinet joints B. The student will be able to layout the various cabinet joints C. The student will be able to set up and machine the various cabinet joints

UNIT: THE STEEL SQUARE

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Identification II. Application and layout tool	A. Calibrations B. Tables C. Scales D. Application E. Layout	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Problem solving G. Interpretation of diagrams H. Meanings in context	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Formulas G. Estimating H. Geometry I. Ratio and proportion J. Basic trigonometric function		A. The student will be able to identify 1. All calibrations 2. Location of all calibrations on square 3. tables and location 4. Scales and location B. The student will be able to state the uses of a square 1. Rafter tables 2. Brace measure 3. Essex board scale 4. Eight square scale C. The student will be able to layout a rafter

UNIT: STAIR CONSTRUCTION

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Layout of a stair	A. Types of stairs 1. Open 2. Closed B. Terms and components 1. Unit rise 2. Unit run 3. Total rise 4. Total run 5. Risers 6. Treads 7. Stringers C. Stair design D. Stair calculation E. Types of stringers 1. Open 2. Semi housed 3. Housed stringers	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Interpretation of diagrams H. Problem solving	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Formulas G. Estimating H. Geometry I. Basic trigonometric function J. Ratio and proportion		A. The student will be able to identify types of stairs B. The student will be able to list components of a staircase C. The student will be able to calculate a basic set of straight stairs D. The student will be able to explain stair terms in relation to their function in stair layout

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Window units	A. Manufacture 1. Aluminum 2. Wood 3. Steel B. Types of windows 1. Double hung 2. Horizontal sliding 3. Casement 4. Awning 5. Fixed C. Parts of window unit 1. Sill 2. Jambs 3. Casings	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Problem solving H. Test taking skills	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Formulas G. Estimating H. Geometry	A. Gravity B. Chemical reactions C. Heat	A. The student will be able to identify various types of window units by sight B. The student will be able to identify all components of window unit C. The student will be able to pass a written test on window units with 70% accuracy

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Assemble component parts II. Assemble component parts into unit	A. Types of cabinets 1. Kitchen 2. Bath 3. Casework 4. Custom designed wall units B. Components 1. Face frames 2. Doors 3. Drawers 4. Boxes 5. Counter tops C. Assembly of parts 1. Face frames 2. Boxes a. sides b. bottoms c. fixed shelves 3. Drawers 4. Doors	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Oral communications F. Spelling G. Interpretation of diagrams H. Problem solving	A. Whole numbers B. Common fractions C. Decimals D. Ratio and proportion E. Weights and measurements F. Formulas G. Estimating H. Geometry	A. Chemical reactions B. Applied chemistry	A. The student will be able to identify various types of cabinets B. The student will be able to identify component parts of basic stock type of kitchen or bath cabinets C. The student will be able to assemble components into unit

UNIT: FINISHING

TOPIC: PLASTIC LAMINATES

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Apply plastic laminates	A. Types and styles 1. Solid colors 2. Patterns 3. Wood grains 4. Embossed 5. Metallics 6. Color core 7. Post forming B. Preparation of base material C. Cutting and shaping D. Adhesives E. Application of adhesive 1. Brush 2. Roller 3. Squeegee 4. Spray F. Applying laminate to base G. Edge trimming 1. File 2. Sanding 3. Trimmer	A. Functional reading skills B. Vocabulary C. Oral communications D. Fact/Opinion distinction E. Following directions F. Outlining and note taking G. Problem solving H. Spelling	A. Whole numbers B. Common fractions C. Decimals D. Weights and measurements E. Estimating F. Geometry	A. Cellular theory B. Chemical reactions C. Applied chemistry D. Heat	A. The student will be able to identify various styles and types of plastic laminates B. The student will be able to prepare base material for the plastic laminate C. The student will be able to cut and shape plastic laminate D. The student will be able to select and apply proper adhesive E. The student will be able to properly apply plastic laminate to base F. The student will be able to properly trim and file finished edges on plastic laminate

UNIT: FINISHING - CONTINUED

TOPIC: MATERIALS

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing finishing materials	A. Types of finishes 1. Varnish 2. Shellac 3. Lacquer 4. Urethane 5. Oil B. Types of stains 1. Oil stains 2. Water base 3. Powder C. Tools 1. Scrapers 2. Sanding blocks 3. Putty knife 4. Burn-in knife 5. Felt pads 6. Spray gun 7. Brushes 8. Abrasive papers	A. Functional reading skills B. Vocabulary C. Meanings in context D. Fact/Opinion distinction E. Following directions F. Outlining and note taking G. Problem solving H. Spelling I. Oral communications	A. Whole numbers B. Common fractions C. Percentages D. Weights and measurements E. Ratio and proportion F. Formulas G. Estimating	A. Cellular theory B. Gravity C. Chemical reactions D. Applied chemistry E. Heat	A. The student will be able to identify various types of protective finishes B. The student will be able to apply various types of finishing coatings C. The student will be able to identify and apply various types of wood stains D. The student will be able to identify slate uses and maintain all the various tools used in finishing procedures

UNIT: CABINET HARDWARE

TOPIC:

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
I. Utilizing cabinet door hardware (hinges)	A. Styles and types 1. Offset 2. Flush 3. Inset 4. Overlay 5. Soss 6. Piano 7. Sliding 8. European B. Manufacturer standards and grades C. Installation	A. Functional reading skills B. Vocabulary C. Oral communications D. Interpretation of diagrams E. Following directions F. Outlining and note taking G. Problem solving H. Spelling	A. Whole numbers B. Common fractions C. Decimals D. Weights and measurements E. Ratio and proportion F. Geometry G. Estimating	A. Cellular theory B. Gravity C. Chemical reactions D. Heat	A. The student will be able to identify types of cabinet door hinges B. The student will be able to select proper type for designated types door C. The student will be able to install various types of cabinet door hardware hinges
II. Utilizing cabinet drawer hardware	A. Styles and types 1. Center slides 2. Ball and nylon side mounted slides 3. Full extension slides B. Manufacturer standards and grades C. Installation	A. Functional reading skills B. Vocabulary C. Fact/Opinioin distinction D. Following directions E. Outlining and note taking F. Interpretation of diagrams G. Problem solving H. Spelling I. Oral communications	A. Whole numbers B. Common fractions C. Decimals D. Weights and measurements E. Ratio and proportion F. Geometry G. Estimating	A. Cellular theory B. Gravity C. Heat	A. The student will be able to identify various types of drawer hardware B. The student will be able to select the proper type of drawer hardware for designated type of drawer C. The student will be able to install various types of drawer hardware

Task	Theory	Communication Skills	Mathematics Skills	Science Knowledge	Student Outcome
III. Utilizing door and drawer locks	A. Styles and types 1. Cylinder type 2. Mortise	A. Functional reading skills B. Vocabulary C. Fact/Opinion distinction D. Following directions E. Outlining and note taking F. Problem solving G. Spelling I. Oral communications	A. Whole numbers B. Common fractions C. Decimals D. Weights and measurements E. Estimating F. Geometry	Gravity	A. The student will be able to identify various types and styles of door and drawer locks B. The student will be able to select the proper type of lock for designated job task C. The student will be able to install various types of door and drawer locks